

CAUTION

1. **SAVE THIS INSTRUCTIONS-** This manual contains important safety and operating instructions for the 3PA5015 battery charger.

Please read the caution of batteries or devices you want to charge firstly!

2. When charging, batteries can emit explosive gases, therefore it is essential to prevent flames and sparks. The charger is designed for charging lead-acid batteries from 2 to 90 Ah. Do not use for any other purpose.
3. Always provide good ventilation when charging.
4. Use of an attachment not recommended or sold by Shenzhen GRN may result in a risk of fire, electric shock or serious injury to persons.
5. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting charger.
6. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure that: a) Pins on plug of extension cord are the same number, size and shape as those of plug on charger; b) Extension cord is properly wired and in good electrical condition; and c) Wire size is large enough for ac ampere rating as specified in "technical data".
7. Do not operate charger with a damaged cord or plug-return the charger to the place where purchased.
8. Never operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way; take it to a qualified serviceman.
9. Do not disassemble the charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
10. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning. Turning off controls will not reduce the risk.

3PA5015R 12V Lead-Acid Battery Charger

User's Manual



March, 2007 Second Version

Brief Introduction

3PA5015 is a new member of a family of professional chargers from Shenzhen GRN. It represents today's new technology for lead-acid type battery charging. 3PA5015R programmed four auto stages (Ud-I-Uo-Up) charging process. It is designed for all kinds of 12V 2~90Ah lead-acid battery, such as SLA, AGM and Gel battery. Stage “Ud” desulfurating the battery through 20V pulse, When the battery recovered, stage “I” will give bulk current charging(0.8A or 3.5A, defined by user, for 2~8Ah 0.8A is prefer, 12~90Ah should select 3.5A). Then, “Uo” stage is followed, the output voltage is fixed on 14.4V(14.7V is for low temperature, <5℃); When the current declined to 0.4A; stage”Up” will turn on duty. At this stage, the battery is charged completely and the charger give some pulse to maintenance the battery.

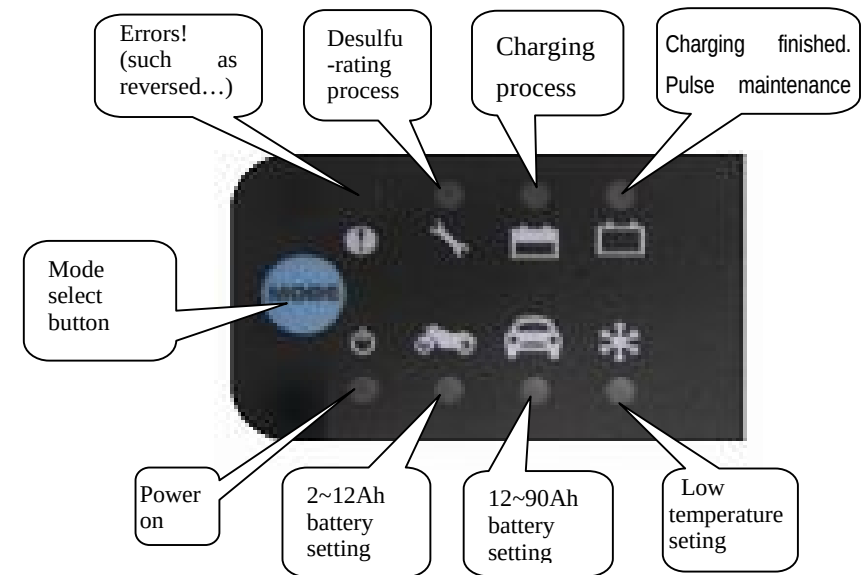
Specification

Input Voltage	100-240VAC, 50-60Hz
Input Current	1.1A
Back current drain 1)	1.3mA
Charge voltage	Rating 12V, Bulk 14.4V/14.7V (14.7V for low temperature)
Ripple 2)	Voltage-ripple 50mV rms, Current-ripple 0.13A
Charge current	0.8A (2~8Ah, for Motorcycle) 3.5A (8~90Ah, for Car batt)
Operate Temperature	-20℃~50℃,
Cooling	Natural convection. Do not cover the charger.
Charge principle	Auto 4 stages: Ud-I-Uo-Up
Battery type	All types of 12V lead-acid batteries.(SLA, Gel, AGM....)
Battery capacity	2-90Ah
Size	120X67X41
Enclosure	IP54
Weight	275g

*)The back current drain(reverse current) is the current that the charger uses form the battery when the wall plug is not connected.

**)The ripple wave describes how many disturbances are exhibited by current and voltage. A rippled voltage can cause damage to other equipment connected to the battery.

Display Panel



How to use:

1. Connect positive charger clip (red) to positive battery terminal, the black clip to negative. (You can use other appendix wires to connect battery)
2. Connect the AC cord to the socket, The red alarm indication light will indicate a battery which is connected to reverse polarity.
3. Pressing the “MODE-button” and stepping forward one press at a time until the required mode is reached, the button is then release
4. When the “charging finished” led lights up, the battery is fully charged. When disconnecting charger, disconnect in reverse sequence from connecting procedure

The table shows the duration of the Bulk stepup to about 80% state of charge. .

Battery type (Ah)	MODE	Time (hours)
2		2-3
8		8-10
14		3-4
50		12-14
90		23-26